

Abstract

The invention relates to an electrochemical gas sensor having both a reference sensor and an active sensor, whereby each reference and active sensor includes a substrate, a counter electrode deposited on a surface of the substrate, a sensing electrode also deposited on the surface, and an electrolytic material in electrical contact with both electrodes for carrying a flow of ions between them, which measures a concentration of a gas and compensates for relative humidity differences between sample gas and surrounding atmosphere. The sensor also includes a layer of electrolytic material on the sensing electrode of the reference sensor and a film of electrolytic material on the sensing electrode of the active sensor, whereby the layer is thicker than the film. The invention may further include a reference electrode in both the reference and active sensors for improving sensor accuracy and/or repeatability.